

mobile device USB connector may permit the RF module to communicate with an issuer or merchant provided kiosk, or to a transaction processing network for transaction completion.

[0031] Additional features and advantages of the present invention are described in, and will be apparent from, the detailed description of the present exemplary embodiments and from the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0032] A more complete understanding of the present invention may be derived by referring to the detailed description and claims when considered in connection with the Figures, where like reference numbers refer to similar elements throughout the Figures, and:

[0033] **FIG. 1** illustrates an exemplary RF transaction device system in accordance with an exemplary embodiment of the present invention;

[0034] **FIG. 2** illustrates an exemplary prior art transaction card in accordance with an exemplary embodiment of the present invention;

[0035] **FIG. 3** illustrates an exemplary sheet of plurality of transaction cards in accordance with an exemplary embodiment of the present invention;

[0036] **FIG. 4** illustrates an exploded view of an exemplary sheet of a plurality of transaction cards including a RF circuitry sheet in accordance with an exemplary embodiment of the present invention;

[0037] **FIG. 5** depicts the front surface of an exemplary RF transaction device in accordance with an exemplary embodiment of the present invention;

[0038] **FIG. 6** shows an exemplary RF module in accordance with an exemplary embodiment of the present invention;

[0039] **FIG. 7** depicts the front surface of an exemplary RF transaction device combination in accordance with an exemplary embodiment of the present invention;

[0040] **FIG. 8** illustrates an overview of an exemplary method for providing a transaction device to an end user in accordance with exemplary embodiments of the present invention;

[0041] **FIG. 9** shows an exemplary sheet of a plurality of cojoined transaction device combination each including a RF transaction device, therein, in accordance with an exemplary embodiment of the present invention;

[0042] **FIG. 10** is an exemplary detailed flowchart of an exemplary method for providing a transaction device to an end user in accordance with exemplary embodiments of the present invention;

[0043] **FIG. 11** depicts an exemplary transporter and RF module combination in accordance with the present invention;

[0044] **FIG. 12** depicts an exemplary RF module removed from a transporter in accordance with the present invention;

[0045] **FIG. 13** depicts an exemplary embodiment of a suitable frequently used portable form factor comprising a recess for including a RF module in accordance with the present invention;

[0046] **FIG. 14** depicts an exemplary RF module carrier in accordance with the present invention;

[0047] **FIG. 15** depicts a transaction device combination including a magnetic stripe in accordance with exemplary embodiments of the present invention;

[0048] **FIG. 16** depicts a transaction device combination with the transaction device removed in accordance with exemplary embodiments of the present invention;

[0049] **FIG. 17** depicts an exemplary RF module in physical and logical communication with an exemplary mobile device microprocessor in accordance with exemplary embodiments of the present invention;

[0050] **FIG. 18** depicts an exemplary RF module including electrical contacts for use in a (SIM) slot for converting the mobile device to a RF transaction device in accordance with exemplary embodiments of the present invention;

[0051] **FIG. 19** depicts an exemplary mobile device including electrical contacts for inclusion of a subscriber identity module (SIM) in accordance with exemplary embodiments of the present invention;

[0052] **FIG. 20** illustrates an exemplary method for processing a transaction in accordance with exemplary embodiments of the present invention;

[0053] **FIG. 21** depicts the functional components of an exemplary RFID reader useful with the present invention; and

[0054] **FIG. 22** depicts an exemplary mutual authentication process in accordance with the present invention.

DETAILED DESCRIPTION

[0055] The present invention relates to contactless transaction devices and methods of making and using the same. Specifically, the present invention relates to a system and method for providing a RF transaction device using conventional transaction card manufacturing procedures. The present invention addresses the shortcomings in the prior art by providing a cost effective method for manufacturing irregular shaped RF transaction devices.

[0056] The present invention may be described herein in terms of functional block components, screen shots, optional selections and various processing steps. Such functional blocks may be realized by any number of hardware and/or software components configured to perform to specified functions. For example, the present invention may employ various integrated circuit components (e.g., memory elements, processing elements, logic elements, look-up tables, and the like), which may carry out a variety of functions under the control of one or more microprocessors or other control devices. Similarly, the software elements of the present invention may be implemented with any programming or scripting language such as C, C++, Java, COBOL, assembler, PERL, extensible markup language (XML), JavaCard and MULTOS with the various algorithms being implemented with any combination of data structures, objects, processes, routines or other programming elements. Further, it should be noted that the present invention may employ any number of conventional techniques for data transmission, signaling, data processing, network control, and the like. For a basic introduction on cryptography,